

Remarks

In the final Office Action mailed on September 11, 2006, the Examiner rejected claims 1, 5-6, 8, 12-13, 15 and 19-20 under 35 USC § 103(a) as being unpatentable over U.S. Patent Publication 2003/0158954 (Williams) in view of U.S. Patent No. 6,501,950 (Smith), and rejected claims 2-4, 9-11 and 16-18 under 35 USC § 103(a) over Williams and Smith in view of U.S. Patent 5,717,737 (Doviak), and rejected claims 7 and 14 under 35 USC § 103(a) over Williams, and Smith in view of U.S. Patent 6,005,929 (Chemin).

Applicants respectfully traverse the rejections and request reconsideration and withdrawal thereof. Claims 1, 8 and 15 are amended to better define the invention. Claims 7, 14 and 20 have been cancelled, and elements of the claims have been incorporated independent claims 1, 8 and 15.

§ 103 Rejection of Claims 1, 5-6, 8, 12-13, 15 and 19-20

The Examiner rejected claims 1, 5-6, 8, 12-13, 15 and 19-20 under 35 USC § 103(a) as being unpatentable over Williams in view of Smith. The 35 USC § 103 rejection over Williams and Smith is traversed because this combination of references does not teach the systems and method of the amended claims. The claims will be discussed in terms of amended independent claim 1.

Amended claim 1 describes a wireless communication network that enables the use of different base stations having different protocols, wherein at least one base station is adapted to communicate with a call processing system in an MSC using a different protocol than another base station. A translator is used with at least one base station to convert the call traffic to a format that is compatible with the call processing system in the MSC. Applicants have amended

claim 1 to further clarify the functionality of the system of amended claim 1 as including functionality of an MSC (e.g., a switched telephone network) versus the walkie-talkie communication system described by Williams. As amended, claim 1 now recites that the first base station system transfers third call traffic in the first format over the backhaul network to the translator system. The translator system, responsive to receiving the third call traffic in the first format over the backhaul network, converts the third call traffic in the first format to the second format. The translator system then transfers the third call traffic in the second format to another call processing system, i.e., a call handoff.

The Applicants generally submit that Williams does not describe the same type of translation in the same place in a network as described in amended claim 1. Williams describes a radio communication system having a protocol translator that permits normally incompatible communication devices, such as fire and police walkie-talkies, to communicate with each other. The translator as described by Williams is equivalent to the translation between two people speaking different languages, such as German and English. The translator of Williams allows two mobile communication devices to communicate with each other despite the language difference. Even though similar terminology is used, there are significant differences between Williams and the pending claims. In Williams, calls are transferred from a first mobile communication device to a second mobile communication device after translation. Williams does not use translation for the benefit of backhauling call traffic from base stations to a call processing system in an MSC. On the other hand, the system of amended claim 1 allows base stations to backhaul call traffic to a call processing system in an MSC in different formats. The format of the Rf communications between the mobile communication devices is not the focus of amended claim 1 as it is in Williams.

In the wireless communication network of amended claim 1, a first base station transmits call traffic for a call in a first format to a call processing system in an MSC over a backhaul network. A second base station transmits call traffic for a second call in a second format not compatible with the format of the call processing system in an MSC to a translator system over the backhaul network. The first format is a format compatible with the call processing system in the MSC, whereas the second format is not compatible with the call processing system in an MSC. The translator system converts the second call traffic from the second format to the first format compatible with the call processing system in an MSC, and transmits the second call traffic in the first format to the call processing system in an MSC. The call processing system in the MSC processes the first call traffic in the first format, and processes the second call traffic from the base station after being converted to the first format. The translator may further handle a call handoff by converting third call traffic in a first format from the first base station system to a second format, and further transfers the third call traffic in the second format to another call processing system.

At least one limitation of amended claim 1 not disclosed by Williams is a call processing system in a mobile switching center (MSC) adapted to process call traffic. The Examiner asserts that paragraph 11 of Williams describes a call processing system coupled to a backhaul network. The Applicants disagree. Paragraph 11 of Williams describes a repeater station for expanding the range of the software defined translator to cover additional regions. The repeater station(s) in Williams is simply used to amplify signals received by an antenna from a mobile communication device, and to transport the amplified signal to the translator. The repeater station does not perform any call processing functions in an MSC, but rather extends the range of the translator and facilitates the transmission of the communication from a first mobile communication device

to a second mobile communication device by amplifying signals.

Another limitation of amended claim 1 not disclosed by Williams is a translator system coupled to the backhaul network and to the call processing system, where the translator system, responsive to receiving the call traffic, converts the call traffic to the first format of the call processing system and transfers the call traffic to the call processing system. As stated above, Williams does not disclose a call processing system in an MSC, and further does not disclose a translator for converting call traffic to a format for use by a call processing system in an MSC. Further, Williams is concerned with the protocol of the Rf transmission between differing mobile communication devices. On the other hand, amended claim 1 describes a call processing system in the MSC adapted to process call traffic received over a backhaul network from base stations. The claimed call processing system in an MSC is configured to process call traffic in a specified format. If a base station is utilized in the system that has a format that the call processing system in an MSC is unable to understand, then the translator translates the call traffic from a base station to a format that the call processing system in an MSC understands. On the other hand, the translator in Williams does not translate call traffic to a format used by a call processing system in an MSC for transporting the call. Rather, Williams discloses translating communications from a format one mobile communication device uses to a format used by another mobile communication device.

The translator in Williams is positioned between a first mobile communication device, such as a walkie-talkie, and a second mobile communication device. Repeater stations may be additionally positioned between the translator and the mobile communication devices to extend the range of the translator. By contrast, the translator in amended claim 1 is positioned between the call processing system and a base station. Thus, the translator in Williams is not implemented

in the same location in the network as in amended claim 1.

Williams operates by receiving a call from a first mobile communication device in a first format, such as a police band, and translates the call to a second format that a second mobile communication device can understand, such as a fire department band. The translator and communication network of Williams is positioned between the mobile communication devices to serve communication signals of different formats between the first or second mobile communication devices. The translator in Williams generates a format for use by either mobile communication device, and does not generate a format for use by elements along the backhaul network, such as a call processing system in an MSC. For the reasons stated above, Williams does not teach that the translator system receives the second call traffic in the second format from the second base station system, converts the second call traffic from the second format to the first format and transfers the second call traffic in the first format to the call processing system in an MSC.

The cited Smith reference also does not disclose this limitation. While Smith describes an MSC translating messages to a standard format (col. 7, lines 1-5), such messages are intra-switch messages, and not base station to MSC communications. Further, the messages are fraud messages which are provided to other MSCs, and not call communications from a base station. Additionally, as Williams describes a decentralized communication system (e.g., walkie talkies), there would be no reason to modify the system of Williams to add the MSC from Smith, because Williams would have no use for a centralized switching system, such as an MSC, in a decentralized communication network.

Another limitation of amended claim 1 not disclosed by Williams is that the translator system, responsive to receiving the third call traffic in the first format over the backhaul network,

converts the third call traffic in the first format to the second format and transfers the third call traffic in the second format to another call processing system. These limitations were originally in rejected claim 7. The Examiner states that these limitations may be found in Chemin. However, neither Chemin nor Williams, individually or in combination, teach the system of amended claim 1.

Chemin does not describe the third call traffic of claim 7. The essential elements of claim 7 have been incorporated into amended claim 1, and claim 7 has been cancelled. Rather than describing base station to MSC communication of the present claims, Chemin describes a call forwarding system among multiple terminals. Chemin does not describe multiple call traffic (e.g., third call traffic) from a communication device to a base station. As such, Chemin does not describe the system of claim 7. These same arguments apply to amended independent claim 8, which now recites the essential elements of claim 14 (now cancelled), and independent claim 15.

Based on the above remarks, Applicants submit that claim 1 is novel and unobvious over Williams in view of Smith and over all art of record (considered individually or in any combination). The same arguments apply to claims 2-6, 8-13 and 15-19.

§ 103 Rejection of Claims 2-4, 9-11 and 16-18

The Examiner rejected claims 2-4, 9-11, and 16-18 under 35 USC § 103(a) over Williams in view of Doviak. The Examiner rejected claims 7 and 14 under 35 USC § 103(a) over Williams and Smith in view of Chemin.

The 35 USC § 103(a) rejections are traversed because these combination of references do not describe or enable all of the limitations of claims 1, 8 and 15, on which claims 2-4, 9-11 and 16-18 depend on. In regard to this argument, the arguments identified above in the 35 USC § 103 rejection of claim 1 are restated. Additionally, dependent claims 2-4, 9-11, and 16-18 recite

additional limitations not disclosed by Williams, Smith, Doviak and Chemin, considered individually or in any combination.

Conclusion

For the reasons provided above, Applicants submit that claims 1-6, 8-13 and 15-19 are allowable over the art cited by the Examiner. The Applicants respectfully ask the Examiner to reconsider his position in view of the above remarks, and allow the pending claims.

Respectfully submitted,

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SIGNATURE OF PRACTITIONER

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